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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,929	03/23/2005	Frank Grau	14116	6414
7590	02/08/2006		EXAMINER	
Orum & Roth 53 West Jackson Blvd. Suite 1616 Chicago, IL 60604			BONK, TERESA	
			ART UNIT	PAPER NUMBER
			3725	
DATE MAILED: 02/08/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/528,929

Applicant(s)

GRAU ET AL.

Examiner

Teresa M. Bonk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because the examiner believes in Figure 1 that the reference signs 3b and 3c are addressing the incorrect areas, according to the following drawing and disclosure in the specifications, and should be switched. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 3 is objected to because of the following informalities: It is not clear to the examiner if the applicant wants both “a circular movement” and “a tilting movement” or “at least one of” the movements. Appropriate correction is required.
3. Claims 4 and 5 are objected to because of the following informalities: There are several spelling errors in both claims, specifically in claim 4, “initial” and “having”, and in claim 5, “transition” and “initial.” Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is insufficient antecedent basis for the following limitations in the claim, “the outer diameter” and “the tubular initial workpiece.”

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anthony (US Patent 3,868,842) in view of Gouiran (FR 2801522). Anthony discloses, as best understood, a method consisting of a “two-step forging” (Abstract, second paragraph, first line) process having a reducing unit adapted to form a transition area in the form of a circumferential inclined surface on the tubular initial workpiece. (Column 2, last line, and Column 3, lines 1-4, and transition area generally indicated by reference sign 24 and 25)

The first processing step includes reducing a first area of an initial workpiece by a radial forming process, effected by rotary swaging, for reducing a outer diameter of the workpiece, forming a transition area, extending at an angle relative to the longitudinal axis extending between the first area of the initial workpiece having the reduced diameter and a non-reduced

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second area (generally indicated with the reference sign 20 and 21 in Figure 4 and reference sign 11 in Figure 5) following the transition area. (Column 3, lines 53-54 and Column 4, lines 36-37)

Anthony substantially discloses the claimed invention except for the orbital forming apparatus and process.

Gouiran discloses, as best understood, a method for deforming a tube having a reducing unit, which is at least one forging die with an inclined forming surface, and comprising an orbital tool that performs an orbital movement about a longitudinal axis (The device is indicated generally by reference sign 8). The orbital forming unit is adapted to convert the inclined transition area to a substantially rectangular shoulder (is indicated generally by reference sign 46 in Figure 5) of the workpiece by cold forming of the initial workpiece. The second process step includes a cold forming process that is an orbital forming process (orbital forging) that is effect by at least one of the circular movement or tilting movement. This second process step will form the transition area on the wall of the initial workpiece to obtain a substantially rectangular shoulder of the workpiece.

Therefore, it would have been obvious to one of ordinary skill in the art to substitute the radial forming/second swaging step in Anthony's invention for Gouiran machining step of orbital processing, a conventional machining operation because it is an acceptable exchange in the art in order is to achieve a more precise result (Anthony, Column 3, lines 8-11).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and further shows the state of the art:

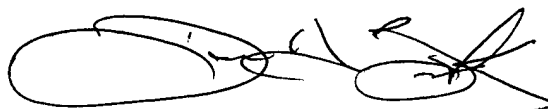
US Patent 6,276,180; US Patent 5,465,598; US Patent 6,247,346;
and US Patent 6,792,782

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa M. Bonk whose telephone number is (571) 272-1901. The examiner can normally be reached on M-F 7:30AM - 5PM with alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-9900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Teresa M. Bonk
Examiner
Art Unit 3725

A handwritten signature in black ink, appearing to read 'DERRIS H. BANKS', with a large, stylized flourish extending from the end of the signature.

**DERRIS H. BANKS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700**